

Notice of Allowability

Application No.

10/828,346

Examiner

Nicholas A. Smith

Applicant(s)

MORI ET AL.

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 21 April 2004.
2. ☒ The allowed claim(s) is/are 18-34.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/897,913.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. The application has been amended as follows: Page 1, after the title of the invention now reads: "This application is a Divisional Application of Serial No. 09/897,913, filed July 5, 2001, now allowed US 6,743,349."

Allowable Subject Matter

2. Claims 18-34 are allowed. The following is an examiner's statement of reasons for allowance: claim 1 of US 6,368,493 (US '493; not prior art) teaches structure of a workpiece as an anode, not as a cathode. Because there is uncertainty in the principles of an ECM apparatus using ultra-pure water, one of ordinary skill in the art would not have had a reasonable expectation of successfully adapting the structure of US '493 to operate the workpiece as a cathode. Therefore, claims 18-21 are allowable over claim 1 of US '493. Furthermore, prior art does not teach, suggest or disclose an ECM apparatus with an ultra-pure water supply unit wherein the workpiece is connected as a cathode and containing a catalyst disposed between the workpiece and anode for dissociating water molecules into hydrogen ions and hydroxide ions. Mori et al. (JP 2000-52235) does not teach the instant claim limitation that the axis of the rotating shaft of the turntable is parallel to the surface of the workpiece. Any modification to Mori et al. incorporating a rotating shaft of the turntable being parallel to the surface of the workpiece would teach away from Mori et al. in that Mori et al. teaches grinding of the entire flat surface workpiece and such a contact would not be maintained with a rotating shaft of the turntable being parallel to the surface of the workpiece. Thus, Mori et al.

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'235 do not teach, suggest or disclose instant claim 22. The claims of US 6,652,658 (US '658; not prior art, except abstract of WO00/34995) do not disclose, teach or suggest direct line contact between the workpiece and the nozzle (acting as the cathode). Thus, the claims of US '658 and the abstract of WO00/34995 do not disclose, teach or suggest instant claims 23-26. Mori et al. (JP 2000-167714) corresponds directly to US '658, and, thus, claims 23-26 are allowable for the same reason. It is further noted that instant claims 23-26 implicitly require ultra-pure water as electrolyte, because the instant claim limitation of a catalyst disposed between said machining electrode and the workpiece for dissociating water molecules into hydrogen ions and hydroxide ions would require a catalyst disposed as such in an electrochemical machining apparatus and thusly would infer use of ultra-pure water in a system.

Applicant has shown, see discussion in the second paragraph on page 9 of response filed 27 October 2003 in parental divisional application 09/897,913 (now US Patent 6,743,349) that US 6,368,493 is not eligible to be used as prior art under 35 USC 102(e) due to common ownership. Therefore, the instant claims are allowable over this reference. Regarding instant claims 27-34, US '493 does not teach, disclose or suggest using high pressure ultra-pure water, US '658 and thus Mori et al. JP 2000-167714 as well, do not teach, disclose or suggest apparatus capable of supplying high pressure ultra-pure water from the upstream side of rotation and Mori et al (JP 2000-52235) do not teach, suggest or disclose apparatus capable of using high pressure ultra-pure water.

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3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mori et al. (US Patent 6,875,335) discloses ultrapure water electrochemical machining apparatus and method.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas A. Smith whose telephone number is (571)-272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAS


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SUPERVISING PATENT EXAMINER
TECHNOLOGY CENTER 1700